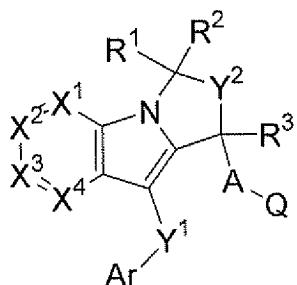


**Amendment to the Claims:**

Please amend Claims 1, 6, 15 and 20, and cancel Claims 3, 7 and 22-26 as follows.

**Listing of Claims:**

1. (Currently Amended) A compound having the formula I



I

and pharmaceutically acceptable salts and hydrates thereof, wherein:

A is selected from C<sub>1</sub>-3alkyl optionally substituted with one to four halogen atoms, O(CH<sub>2</sub>)<sub>1-2</sub>, and S(CH<sub>2</sub>)<sub>1-2</sub>;

Ar is aryl or heteroaryl each optionally substituted with one to four groups independently selected from Rg selected from phenyl, 2-, 3-, 4-chlorophenyl, 2-, 3-, 4-bromophenyl, 2-, 3-, 4-fluorophenyl, 3,4-dichlorophenyl, 2,3-dichlorophenyl, 2,4-dichlorophenyl, 2,5-dichlorophenyl, 2,6-dichlorophenyl, 3,5-dichlorophenyl, 3-chloro-4-fluorophenyl, 2-chloro-4-fluorophenyl, 4-chloro-2-fluorophenyl, 2-cyanophenyl, 4-methylphenyl, 4-isopropylphenyl, 4-trifluoromethylphenyl, biphenyl, naphthyl, 3-methoxyphenyl, 3-carboxyphenyl, 2-carboxamidophenyl, 4-methoxyphenyl, 3-phenoxyphenyl, 4-(4-pyridyl)phenyl, 4-methylsulfonylphenyl, 3-dimethylaminophenyl, 5-tetrazolyl, 1-methyl-5-tetrazolyl, 2-methyl-5-tetrazolyl, 2-benzothienyl, 2-benzofuranyl, 2-indolyl, 2-quinolinyl, 7-quinolinyl, 2-benzothiazolyl, 2-benzimidazolyl, 1-benzotriazolyl, 2-furanyl, 3-furanyl, 2-imidazolyl, 5-imidazolyl, 5-isoxazolyl, 4-isoxazolyl, 4-isothiazolyl, 1,2,4-oxadiazol-5-yl, 2-oxazolyl, 4-oxazolyl, 4-pyrazolyl, 5-pyrazolyl, 2-pyridyl, 3-pyridyl, 2-pyrazinyl, 5-pyrimidinyl, 2-pyrrolyl, 4-thiazolyl, 1,2,4-thiadiazol-3-yl, 1,2,5-thiadiazol-4-yl, 1,2,3-thiadiazol-4-yl, 1,2,5-oxadiazol-4-yl, 1,2,3-oxadiazol-4-yl, 1,2,4-triazol-5-yl, 1,2,3-triazol-4-yl, 3-thienyl, 1,2,4-triazol-5-yl, pyrrolo-pyridine, furo[3,2-b]pyridin-2-yl, thieno[2,3-b]pyridin-2-yl, 5(H)-2-oxo-4-furanyl, 5(H)-2-oxo-5-furanyl, (1H,4H)-5-oxo-1,2,4-triazol-3-yl, 4-oxo-2-benzopyran-yl;

Q is COOH,

one of X<sup>1</sup>, X<sup>2</sup>, or X<sup>3</sup> or X<sup>4</sup> is nitrogen and the others are independently selected from CH and C-Rg and Rg is selected from 1) C<sub>1-6</sub>alkyl optionally substituted with one to eight groups independently selected from aryl, heteroaryl, halogen, NR<sup>a</sup>R<sup>b</sup>, C(O)R<sup>a</sup>, C(OR<sup>a</sup>)R<sup>a</sup>R<sup>b</sup>, SR<sup>a</sup> and OR<sup>a</sup>, wherein aryl, heteroaryl and alkyl are each optionally substituted with one to six groups independently selected from halogen, CF<sub>3</sub>, and COOH, or 2) S(O)<sub>n</sub>C<sub>1-6</sub>alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH, and OC(O)R<sup>a</sup>;

X<sup>2</sup> is CH;

X<sup>4</sup> is CH or C-Rg, where Rg is selected from 1) C<sub>1-6</sub>alkyl optionally substituted with OR<sup>a</sup> or 2) S(O)<sub>n</sub>C<sub>1-6</sub>alkyl;

Y<sup>1</sup> is S;

Y<sup>2</sup> is selected from (CR<sup>d</sup>Re)<sub>m</sub> and CR<sup>d</sup>=CRE;

R<sup>1</sup> is selected from H, CN, OR<sup>a</sup>, S(O)<sub>n</sub>C<sub>1-6</sub>alkyl and C<sub>1-6</sub>alkyl optionally substituted with one to six groups independently selected from halogen, OR<sup>a</sup> and S(O)<sub>n</sub>C<sub>1-6</sub>alkyl;

R<sup>2</sup> is selected from H and C<sub>1-6</sub>alkyl optionally substituted with one to six halogen; or

R<sup>3</sup> is selected from H and C<sub>1-6</sub>alkyl optionally substituted with one to six groups independently selected from OR<sup>a</sup> and halogen;

R<sup>a</sup> and R<sup>b</sup> are independently selected from H, and C<sub>1-10</sub>alkyl, C<sub>2-10</sub>alkenyl, C<sub>2-10</sub>alkynyl, Cy and Cy-C<sub>1-10</sub>alkyl, wherein said alkyl, alkenyl, alkynyl and Cy are optionally substituted with one to six substituents independently selected from halogen, amino, carboxy, C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkoxy, aryl, heteroaryl, aryl-C<sub>1-4</sub>alkyl, hydroxy, CF<sub>3</sub>, OC(O)C<sub>1-4</sub>alkyl, OC(O)NR<sup>i</sup>R<sup>j</sup>, and aryloxy; or

R<sup>e</sup> is selected from C<sub>1-6</sub>alkyl optionally substituted with one to six halogen, aryl and heteroaryl, wherein said aryl and heteroaryl are optionally substituted with one to three groups selected from halogen, OC<sub>1-6</sub>alkyl, O-haloC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyl and haloC<sub>1-6</sub>alkyl;

R<sup>d</sup> and R<sup>e</sup> are independently H, halogen, aryl, heteroaryl, C<sub>1-6</sub>alkyl or haloC<sub>1-6</sub>alkyl;

R<sup>f</sup> is selected from H, C<sub>1-6</sub>alkyl, haloC<sub>1-6</sub>alkyl, Cy, C(O)C<sub>1-6</sub>alkyl, C(O)haloC<sub>1-6</sub>alkyl, and C(O)-Cy;

R<sup>g</sup> is selected from

(1) halogen;

(2) CN;

- (3) ~~C<sub>1-6</sub>alkyl~~ optionally substituted with one to eight groups independently selected from aryl, heteroaryl, halogen, NR<sup>a</sup>R<sup>b</sup>, C(O)R<sup>a</sup>, C(OR<sup>a</sup>)R<sup>b</sup>, SR<sup>a</sup> and OR<sup>a</sup>, wherein aryl, heteroaryl and alkyl are each optionally substituted with one to six groups independently selected from halogen, CF<sub>3</sub>, and COOH,
- (4) ~~C<sub>2-6</sub>alkenyl~~ optionally substituted with one to six groups independently selected from halogen and OR<sup>a</sup>,
- (5) Cy
- (6) C(O)R<sup>a</sup>,
- (7) C(O)OR<sup>a</sup>,
- (8) CONR<sup>a</sup>R<sup>b</sup>,
- (9) OCONR<sup>a</sup>R<sup>b</sup>,
- (10) OC<sub>1-6</sub>alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH and OC(O)R<sup>a</sup>,
- (11) O-Cy;
- (12) S(O)<sub>n</sub>C<sub>1-6</sub>alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH, and OC(O)R<sup>a</sup>,
- (13) S(O)<sub>n</sub>-Cy,
- (14) NR<sup>a</sup>S(O)<sub>n</sub>R<sup>b</sup>,
- (15) NR<sup>a</sup>R<sup>b</sup>,
- (16) NR<sup>a</sup>C(O)R<sup>b</sup>,
- (17) NR<sup>a</sup>C(O)OR<sup>b</sup>,
- (18) NR<sup>a</sup>C(O)NR<sup>a</sup>R<sup>b</sup>,
- (19) S(O)<sub>n</sub>NR<sup>a</sup>R<sup>b</sup>,
- (20) NO<sub>2</sub>;
- (21) C<sub>5-8</sub>cycloalkenyl;

wherein Cy is optionally substituted with one to eight groups independently selected from halogen, C(O)R<sup>a</sup>, OR<sup>a</sup>, C<sub>1-3</sub>alkyl, aryl, heteroaryl and CF<sub>3</sub>;

R<sup>i</sup> and R<sup>j</sup> are independently selected from hydrogen, C<sub>1-10</sub>alkyl, Cy and Cy-C<sub>1-10</sub>alkyl; or R<sup>i</sup> and R<sup>j</sup> together with the nitrogen atom to which they are attached form a ring of 5 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and N-R<sup>f</sup>;

Cy is selected from heterocyclic, aryl, and heteroaryl;

m is 1 or 2; and

n is 0, 1 or 2.

2. (Original) A compound of Claim 1 wherein A-Q is CH<sub>2</sub>CO<sub>2</sub>H.

3. (Canceled)

4. (Canceled)

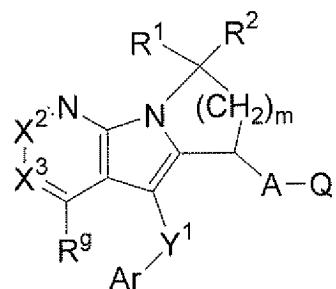
5. (Canceled)

6. (Currently Amended) A compound of Claim 1 wherein one of X<sup>1</sup>, X<sup>2</sup> and X<sup>3</sup> is nitrogen and the other is ethers are CH, X<sup>2</sup> is CH<sub>2</sub> and X<sup>4</sup> is C-S(O)<sub>n</sub>-C<sub>1-6</sub>alkyl or C-C<sub>1-6</sub>alkyl optionally substituted with OR<sup>a</sup>.

7. (Canceled)

8. (Original) A compound of Claim 1 wherein Y<sup>2</sup> is selected from CH<sub>2</sub> and CH<sub>2</sub>CH<sub>2</sub>.

9. (Original) A compound of Claim 1 represented by the formula Ia:



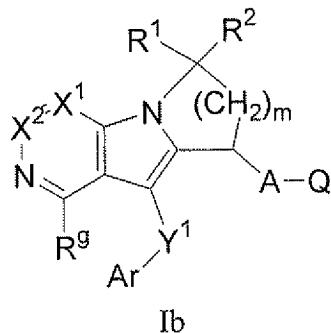
Ia

wherein X<sup>2</sup> and X<sup>3</sup> are independently CH or C-Rg, A, Ar, Q, Y<sup>1</sup>, R<sup>1</sup>, R<sup>2</sup>, m and Rg are as defined in Claim 1.

10. (Original) A compound of Claim 9 wherein X<sup>2</sup> and X<sup>3</sup> are each CH, R<sup>1</sup> and R<sup>2</sup> are each H, and A-Q is CH<sub>2</sub>CO<sub>2</sub>H.

11. (Original) A compound of Claim 9 wherein Y<sup>1</sup>-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C<sub>1</sub>-<sub>6</sub> alkyl and trifluoromethyl.

12. (Original) A compound of Claim 1 represented by the formula Ib:

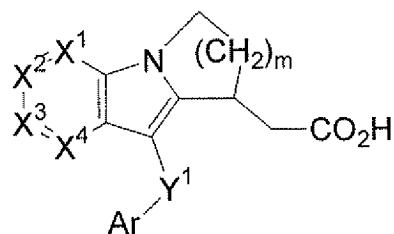


wherein X<sup>1</sup> and X<sup>2</sup> are independently CH or C-Rg, A, Ar, Q, Y<sup>1</sup>, R<sup>1</sup>, R<sup>2</sup>, m and Rg are as defined in Claim 1.

13. (Original) A compound of Claim 12 wherein X<sup>1</sup> and X<sup>2</sup> are each CH, R<sup>1</sup> and R<sup>2</sup> are each H, and A-Q is CH<sub>2</sub>CO<sub>2</sub>H.

14. (Original) A compound of Claim 13 wherein Y<sup>1</sup>-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C<sub>1</sub>-<sub>6</sub> alkyl and trifluoromethyl.

15. (Currently Amended) A compound of Claim 1 represented by the formula Ic:



wherein one of X<sup>1</sup>, X<sup>2</sup> and X<sup>3</sup> is N and the others are each is CH, X<sup>4</sup> is CH, X<sup>4</sup> is CRg, m is 1 or 2, and Ar, Y<sup>1</sup> and m are as defined in Claim 1.

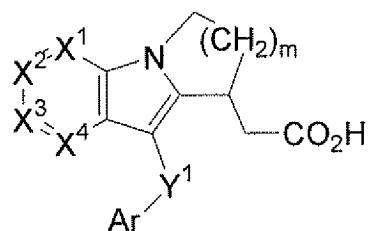
16. (Original) A compound of Claim 15 wherein Ar is phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C<sub>1</sub>-3alkyl and trifluoromethyl.

17. (Canceled)

18. (Original) A compound of Claim 15 wherein X<sup>4</sup> is selected from C-S(O)<sub>n</sub>-C<sub>1</sub>-6alkyl and C-C<sub>1</sub>-6alkyl optionally substituted with OR<sup>a</sup>.

19. (Previously Presented) A compound of Claim 15 wherein Y<sup>1</sup>-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C<sub>1</sub>-6alkyl and trifluoromethyl; X<sup>1</sup> and X<sup>2</sup> are each CH, X<sup>3</sup> is N, m is 1 or 2, and X<sup>4</sup> is C-SO<sub>2</sub>-C<sub>1</sub>-6alkyl or C-C<sub>1</sub>-6alkyl.

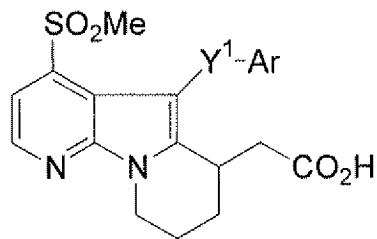
20. (Currently Amended) A compound of Claim 1 selected from:



<b>X1</b>	<b>X2</b>	<b>X3</b>	<b>X4</b>	<b>Ar</b>	<b>Y1</b>	<b>m</b>
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
N	CH	CH	C(SCH <sub>3</sub> )	4-Cl-Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	3,4-diCl-Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Br-Ph	S	2
CH	CH	N	C(SO <sub>2</sub> CH <sub>3</sub> )	3,4-diCl-Ph	S	1
CH	CH	N	C(SO <sub>2</sub> CH <sub>3</sub> )	3,4-diCl-Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-CF <sub>3</sub> -Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	2-Cl-4-F-Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	2-naphthyl	S	2

X1	X2	X3	X4	Ar	Y1	m
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	2,3-diCl-Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-CH <sub>3</sub> -Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	Ph	S	2
N	CH	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	2,4-diCl-Ph	S	2
CH	N	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
CH	CH	N	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
N	C(CH <sub>3</sub> )	CH	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
N	CH	C(CH <sub>3</sub> )	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
CH	C(CH <sub>3</sub> )	N	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
C(CH <sub>3</sub> )	CH	N	C(SO <sub>2</sub> CH <sub>3</sub> )	4-Cl-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-F-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Cl-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2,4-diCl-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Br-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2-Cl-4-F-Ph	S	2
N	CH	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	3,4-diCl-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-F-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Cl-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2,4-diCl-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Br-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2-Cl-4-F-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	3,4-diCl-Ph	S	2
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-F-Ph	S	1
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Cl-Ph	S	1
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2,4-diCl-Ph	S	1
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Br-Ph	S	1
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2-Cl-4-F-Ph	S	1
CH	CH	N	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	3,4-diCl-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-F-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Cl-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2,4-diCl-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Br-Ph	S	1
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2-Cl-4-F-Ph	S	1

X1	X2	X3	X4	Ar	Y1	m
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	3,4-diCl-Ph	S	4
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-F-Ph	S	2
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Cl-Ph	S	2
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2,4-diCl-Ph	S	2
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	4-Br-Ph	S	2
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	2-Cl-4-F-Ph	S	2
CH	N	CH	C(CH(CH <sub>3</sub> ) <sub>2</sub> )	3,4-diCl-Ph	S	2
N	CH	CH	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	2
N	CH	CH	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	1
CH	N	CH	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	4
CH	N	CH	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	2
CH	CH	N	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	2
CH	CH	N	C(CH(OCH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> ))	4-Cl-Ph	S	1
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	4-Cl-Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	3,4-diCl-Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	4-Br-Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	4-CF <sub>3</sub> -Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	2-Cl-4-F-Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	2-naphthyl	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	2,3-diCl-Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	4-CH <sub>3</sub> -Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	Ph	S	2
N	CH	CH	C(C(CH <sub>3</sub> ) <sub>3</sub> )	2,4-diCl-Ph	S	2



Ar	Y <sup>1</sup>
5-tetrazolyl	S
2-pyrrolyl	S
1,2,4-triazoly-3-yl	S
1,2,3-triazol-4-yl	S
5-imidazolyl	S
4-pyrazolyl	S
5-pyrazolyl	S
(1H,4H)-5-oxo-1,2,4-triazol-3-yl	S
4-isothiazolyl	S
1,2,5-thiadiazol-5-yl	S
1,2,5-oxadiazol-5-yl	S
3-furanyl	S
1,2,3-thiadiazol-4-yl	S
1,2,3-oxadiazol-4-yl	S
4-isoxazolyl	S
3-thienyl	S
4-oxazolyl	S
4-thiazolyl	S
(5H)-2-oxo-5-furanyl	S
(5H)-2-oxo-4-furanyl	S
1,2,4-oxadiazol-5-yl	S
3-pyridyl	S
2-pyrazinyl	S
5-pyrimidinyl	S
2-indolyl	S
2-benzothienyl	S
2-benzofuranyl	S

Ar	Y <sup>1</sup>
4-oxo-benzopyran-2-yl	S
2-quinolinyl	S
2-benzimidazolyl	S
2-benzoxazolyl	S
2-benzothiazolyl	S
1-benzotriazolyl	CH <sub>2</sub> S
thieno[2,3-b]pyridin-2-yl	S

21. (Original) A pharmaceutical composition comprising a compound of Claim 1 and a pharmaceutically acceptable carrier.

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)